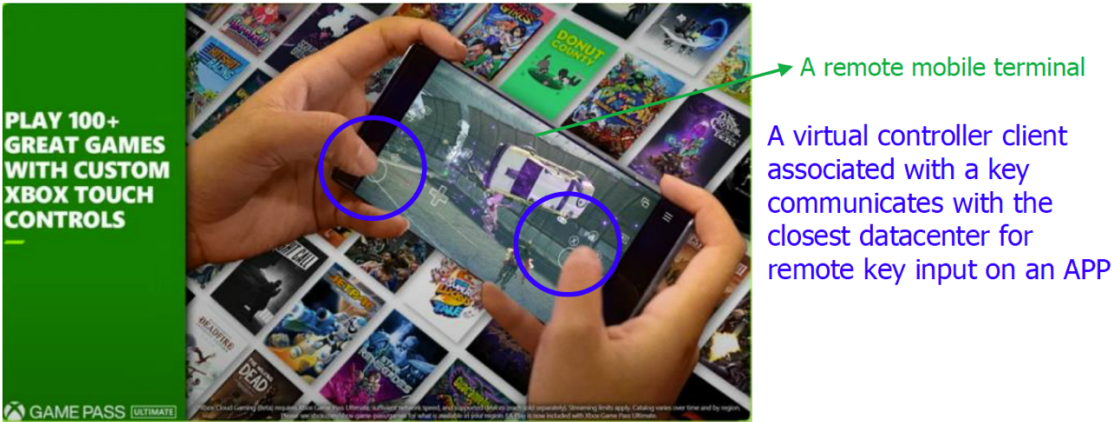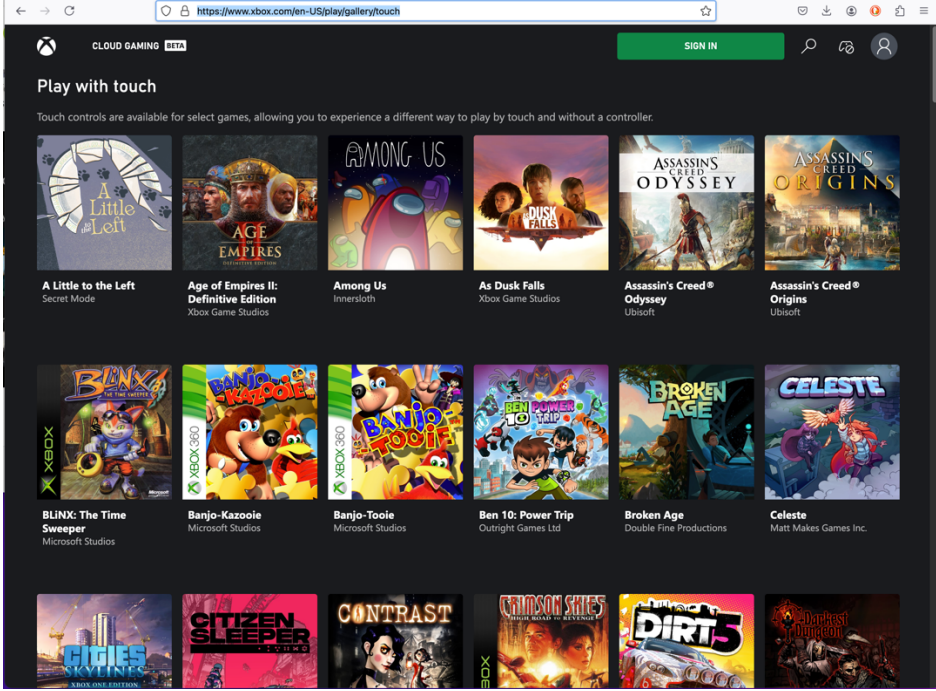# Exhibit 4

# Exhibit 4
# U.S. Patent No. 9,612,709
## v.
# Microsoft XBOX Cloud Gaming ("Exemplary Product")

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| **Claim 4** | |
| 4. A computer comprising. | The Exemplary Product includes a computer.<br><br>For example, the Exemplary Product is implemented using one or more servers. *E.g.*, https://learn.microsoft.com/pdf?url=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fgaming%2Fgdk%2Ftoc.json at 481("With Xbox Game Streaming, your game runs on an Xbox server in an Azure datacenter.").<br><br>Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [a] a virtual controller server configured to remotely communicate with a virtual controller client running on a remote mobile terminal including a touch screen display device for remote key input on an application running on the computer, the virtual controller server comprising: | The Exemplary Product includes a virtual controller server configured to remotely communicate with a virtual controller client running on a remote mobile terminal including a touch screen display device for remote key input on an application running on the computer.<br><br>For example, "[s]elect games can be played with Xbox touch controls." https://www.xbox.com/en-US/cloud-gaming; *see also* https://learn.microsoft.com/pdf?url=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fgaming%2Fgdk%2Ftoc.json at 527("When players stream your game to their mobile devices, one of the best ways that you can increase their enjoyment of the game is to enable them to interact with your game with touch controls. Xbox game streaming supports the ability to overlay touch controls on your game using the Touch Adaptation Kit, and that can be a great choice for many screens in your game where having a virtual gamepad is a natural way to play the game. However, for portions of your game |

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| | like menus, maps, inventory screens and others, it may be more natural to interact with the game directly with touch inputs."). <br><br>  <br><br> https://learn.microsoft.com/pdf?url=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fgaming%2Fgdk%2Ftoc.json at 531 ("Each layout is a JSON representation of a specific set of touch controls that can be displayed to the player."), 4320 ("Name of the touch control layout to display…The id of the touch control layout…Layout ids are title-specific"). <br><br> https://github.com/microsoft/xbox-game-streaming-tools/blob/main/touch-adaptation-kit/samples/sample-layouts/layouts/neutral/driving.json (showing sample JSON objects with button mappings). <br><br> https://youtu.be/LfxAJt-Q9nE?si=ZKFq7l_DSboc-Adb&t=512. <br><br> A list of currently available games that are "Play with touch" compatible can be found here: https://www.xbox.com/en-US/play/gallery/touch |

2

'709 Patent v. Microsoft XBOX Cloud Gaming

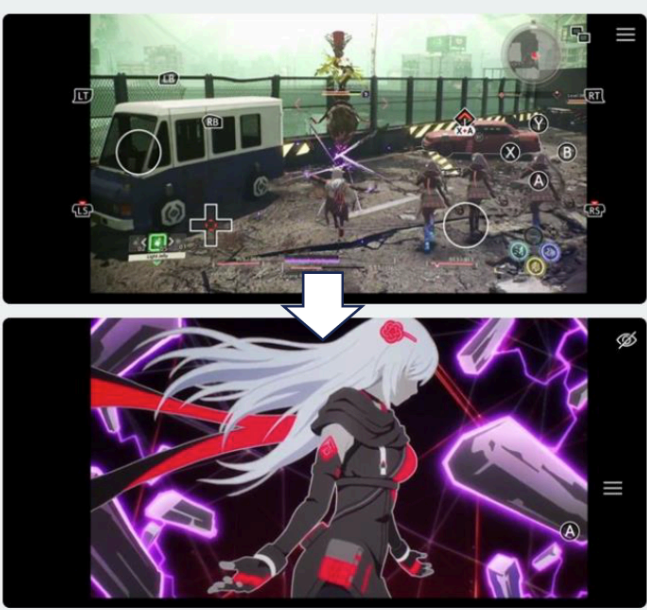| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| |  |
| | Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [b] a button setting generating unit configured to generate and transmit, to the virtual controller client, first button setting information including a mapping relationship | The Exemplary Product includes a button setting generating unit configured to generate and transmit, to the virtual controller client, first button setting information including a mapping relationship between key inputs to the application and associated virtual input messages.<br><br>For example, see the evidence cited in claim element [a] describing the generation and transmission of a virtual control (including virtual buttons) and the relationship between the button and input messages. *See* |

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| between key inputs to the application and associated virtual input messages; | *also*, *e.g.*, https://github.com/microsoft/xbox-game-streaming-tools/blob/main/touch-adaptation-kit/samples/sample-layouts/layouts/neutral/driving.json (in, for example, "first-person-shooter.json":<br><br>```json<br>{<br>  "type": "button",<br>  "action": "gamepadA",<br>  "styles": {<br>    "default": {<br>      "faceImage": {<br>        "type": "icon",<br>        "value": "jump"<br>      }<br>    }<br>  }<br>}<br>```<br>).<br><br>Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [c] a server message interfacing unit configured to transmit a setting message including the first button setting information to the virtual controller client, and to receive a virtual input message from the virtual controller client, the virtual input message being | The Exemplary Product includes a server message interfacing unit configured to transmit a setting message including the first button setting information to the virtual controller client, and to receive a virtual input message from the virtual controller client, the virtual input message being generated based on a touch on the touch screen display device of the mobile terminal.<br><br>For example, *see* evidence cited in claim elements [a] and [b]. In addition, "[e]very call to XGameStreamingShowTouchControlLayout results in a message being sent over the network, so it should not be called every frame."<br>https://learn.microsoft.com/pdf?url=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fgaming%2Fgdk%2Ftoc.json at 4321. |

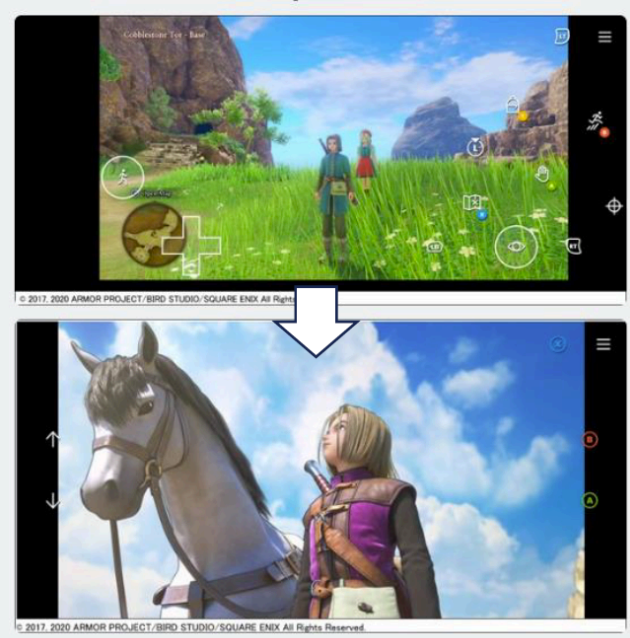'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| generated based on a touch on the touch screen display device of the mobile terminal; and | Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [d] a key mapping unit configured to identify a key input value mapped to the received virtual input message based on the first button setting information, | The Exemplary Product includes a key mapping unit configured to identify a key input value mapped to the received virtual input message based on the first button setting information.<br><br>For example, *see* evidence cited in claim elements [a], [b], and [c]. *See also*, *e.g.*, https://github.com/microsoft/xbox-game-streaming-tools/blob/main/touch-adaptation-kit/samples/sample-layouts/layouts/neutral/driving.json (in, for example, "first-person-shooter.json":<br><pre>{<br>  "type": "button",<br>  "action": "gamepadA",<br>  "styles": {<br>    "default": {<br>      "faceImage": {<br>        "type": "icon",<br>        "value": "jump"<br>      }<br>    }<br>  }<br>}</pre>).<br><br>Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |

5

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| [e] wherein the mapping relationship dynamically redefines the virtual input message associated with a given key input based on an event in the application, | The Exemplary Product includes a mapping relationship that dynamically redefines the virtual input message associated with a given key input based on an event in the application.<br><br>For example, documentation for aspects of the Exemplary Product advises to "only call this API when your game needs to transition between different touch control layouts" and provides examples of ways to dynamically redefine the virtual control layout and associated virtual input messages.<br><br>**Examples**<br><br>```cpp
C++

void OnGameStateChanged(GameState newState)
{
    // Toggle to the set of touch overlay controls which best match the new
state of the game
    switch (newState)
    {
    case GameState::FirstPersonAction:
        XGameStreamingShowTouchControlLayout("FirstPersonAction");
        break;
    case GameState::Driving:
        XGameStreamingShowTouchControlLayout("Driving");
        break;
    case GameState::CutScene:
        // Don't show any touch overlay controls while the cut scene is
rendering
        XGameStreamingHideTouchControls();
        break;
```<br><br>https://learn.microsoft.com/pdf?url=https%3A%2F%2Flearn.microsoft.com%2Fen-us%2Fgaming%2Fgdk%2Ftoc.json at 4321; *see also id.* at 634-640 (showing different sample control layouts).<br><br>The dynamic redefinition can be seen in games using the Exemplary Product as well, as shown by the screenshots below. |

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| | Title : Like a dragon<br> |

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| | Title : Scarlet Nexus<br> |

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| | Titel : Dragon Quest<br><br><br><br>Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [f] wherein the button setting generating unit is further configured to, in response to an occurrence of the event in the application, generate and transmit, to the virtual controller client, | The Exemplary Product includes a button setting generating unit that is configured to, in response to an occurrence of the event in the application, generate and transmit, to the virtual controller client, second button setting information including the dynamically changed virtual input message associated with the given key input.<br><br>For example, see evidence cited in claim elements 1[b] and 1[e]. |

9

'709 Patent v. Microsoft XBOX Cloud Gaming

| Claim Language | Selected Analysis and Evidence Regarding Exemplary Product |
|---|---|
| second button setting information including the dynamically changed virtual input message associated with the given key input, and | Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |
| [g] wherein the key mapping unit is further configured to identify the key input value mapped to the dynamically changed virtual input message based on the second button setting information. | The Exemplary Product includes a key mapping unit configured to identify the key input value mapped to the dynamically changed virtual input message based on the second button setting information.<br><br>For example, see evidence cited in claim element 1[d].<br><br>Investigation of both the patent and the Exemplary Product (and other potentially infringing products) is ongoing. This chart is based on evidence and analysis reasonably accessible at this time. TS-Optics reserves the right to update and amend its contentions, including adding additional claims and evidence, as the litigation progresses and discovery is provided by the defendant. |

'709 Patent v. Microsoft XBOX Cloud Gaming